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cont a control electrode located near the electron emitter to control trajectories of emitted electrons.

REMARKS

Original claims 1-9 and new claims 10-17 are pending in the application. Claims 1, 7, and 8 have been amended. The amendments to the claims find full support in the specification, and the new claims and amendments to the specification add no new matter. Applicant requests that the amendments to the specification, amended claims, and new claims be entered prior to examination

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

The paragraph beginning at page 1, line 11 of the Specification is amended as follows:

A typical vacuum fluorescent display device comprises a transparent evacuated envelope containing a plurality of anodes arranged in a pattern of desired light emission, each anode being coated with a fluorescent layer for emitting light when excited, a heated filament serving as a source of electrons, and control grids located between the filament and the anodes for determining which anodes can be excited by the electrons. When the anodes and the control grids are at a high voltage and the filament is at a lower voltage, the electrons can excite the phosphor layer on the anodes to cause light emission from the anodes.

The paragraph beginning at page 1, line 20 of the Specification is amended as follows:

Referring to Fig. 5, a conventional VFD will be described. An evacuated envelope is sealed with a face glass 2, a base substrate 4 and side glasses 6. The base substrate 4 comprises a wiring layer (not shown) covered with an insulating layer 8. A conducting layer 12 (anode) is formed on the insulating layer 8 and is provided with a positive potential through a conducting wire 10. A phosphor layer 14 is deposited on the conducting layer 12.

The paragraph beginning at page 2, line 4 of the Specification is amended as follows:

A plurality of filamentary cathodes 18 is located in the envelope spaced ~~[with]~~ from the anode 12 and is heated to thermionically emit the electrons, Control grids 16 are located between the anode 12 and the cathode 18 to accelerate the emitted electrons.

The paragraph beginning at page 2, line 8 of the Specification is amended as follows:

In the VFD shown in Fig. 5, or other similar triode vacuum tubes, the filament is heated, such as by an AC current, to a temperature at which it will emit electrons. The control grids, biased at a positive potential, accelerate electrons emitted from the filament toward the anode, which is also biased higher than the filament. On the anode, the phosphor layer emits light in response to the bombardment ~~[of]~~ by electrons emitted from the filament and accelerated by the control grid to the anode.

The paragraph beginning at page 6, line 12 of the Specification is amended as follows:

In the VFD shown in Figs. 1 and 2, the filament 34 is heated, by an AC current for example, to a temperature at which it will emit electrons. The grids 36 are biased at a negative potential to accelerate electrons emitted from the filament 34 toward the anode. The grids 36 are preferably biased at a lower voltage than the filament. On the conducting layer 30, the phosphor layer 32 emits light in response to the bombardment ~~[of]~~ by electrons emitted from the filament 34 and accelerated by the grids 36.

The paragraph beginning at page 8, line 19 of the Specification is amended as follows:

As explained above, a VFD according to the present invention does not ~~[has]~~ have any obstacles in the electron path to an anode, so most of the electrons emitted from a filament can reach the anode. Further, the electrons are accelerated by an electron control unit and uniformly diffused by control electrodes in the VFD, so brightness as well as display quality is much improved.

Claims 1, 7, and 8 are amended as follows:

Please amend claims 1, 7, and 8 as follows. All pending claims are recited herein for the Examiner's convenience.

1. (Amended) A vacuum fluorescent display comprising:

~~[an evacuated envelope surrounded by]~~ a pair of substrates and side glasses surrounding an evacuated envelope;

an electron emissive means for emitting electrons when a negative potential is applied; ~~[and]~~

a display means, provided on one of the substrates in the evacuated envelope, capable of having a positive potential applied thereto, for ~~[and]~~ displaying a predetermined image in response to ~~[the]~~ electrons emitted from the electron emissive means; and

an electron control means for generating a repulsive electric field to allow acceleration of ~~[the]~~ electrons emitted from the electron emissive means in the direction of the display means,

wherein the electron emissive means is located between the display means and electron control means.

7. (Amended) The vacuum fluorescent display as recited in claim 6, wherein the transparent electrically conductive material is tin doped indium oxide ~~[(ITO)]~~.

8. (Amended) The vacuum fluorescent display as recited in claim 1, further comprising control electrode means, located ~~[around]~~ near the electron emissive means, for control of ~~[the]~~ trajectories of ~~[the]~~ electrons emitted from the electron emissive means.